F O L I A GEOBOTANICA

A Journal of Plant Ecology and Systematics

36 / 2001

INSTITUTE OF BOTANY
ACADEMY OF SCIENCES OF THE CZECH REPUBLIC

FOLIA GEOBOTANICA

A JOURNAL OF PLANT ECOLOGY AND SYSTEMATICS

Founded in 1966 by S. Hejný and J. Moravec
Published by the Institute of Botany, Academy of Sciences of the Czech Republic, Průhonice

Editors
Tomáš Herben, Průhonice (ecology)
Karol Marhold, Bratislava (systematics)
Milan Chytrý, Brno (vegetation classification)

Book review editor
Jindřich Chrtek jun., Průhonice

Technical editor
Zuzana Fialová

Language editing
Janice Forry

Editorial office
Institute of Botany, Academy of Sciences of the Czech Republic, CZ-252 43 Průhonice, Czech Republic

Advisory editorial board

M.G. Barbour, Davis
J.C.M. den Nijs, Amsterdam
H.J. During, Utrecht
T. Hara, Sapporo
H. Hurka, Osnabrück
L. Klimeš, Třeboň
J. Kolbek, Průhonice
F. Krahulec, Průhonice
J. Lepš, České Budějovice
J. Loidi, Bilbao
J. Moravec, Průhonice
L. Mucina, Phuthadijthaba
G. Nieto Feliner, Madrid
P. Pyšek, Průhonice
M. Rejmánek, Davis
A.J. Richards, Newcastle upon Tyne
J.S. Rodwell, Lancaster
M. Rychnovská, Olomouc
J.H.J. Schaminée, Wageningen
B. Schmid, Zürich
C.A. Stace, Leicester
P. Šmilauer, České Budějovice
J. Štěpánek, Průhonice
M.B. Usher, Edinburgh
M.J.A. Werger, Utrecht
K. Zobel, Tartu

CONTENTS, VOLUME 36 (2001)

ALMEIDA DA SILVA R.M., SÁEZ L. & ROSSELLÓ J.A.: Taxonomy of the genus *Brimeura* (*Hyacinthaceae*) 193

ÁLVAREZ FERNÁNDEZ I. & NIETO FELINER G.: A multivariate approach to assess the taxonomic utility of morphometric characters in *Doronicum* (*Asteraceae*, *Senecioneae*) 423

BARTHA S. & ITTZÉS P.: Local richness-species pool ratio: a consequence of the species-area relationship 9

DANIHELKA J. & ROTREKLOVÁ O.: Chromosome numbers within the *Achillea millefolium* and the *A. distans* groups in the Czech Republic and Slovakia 163

DE LA FUENTE V. & ORTÚÑEZ E.: *Festuca* sect. *Eskia* (*Poaceae*) in the Iberian Peninsula 385

DURING H.J. & LLORET F.: The species-pool hypothesis from a bryological perspective 63

GRACE J.B.: Difficulties with estimating and interpreting species pools and the implications for understanding patterns of diversity 71

LEPŠ J.: Species-pool hypothesis: limits to its testing 45

MÁRTONFI P.: New species of the genus *Hypericum* sect. *Hypericum* (*Guttiferae*) from Slovakia 371

MOLINA J.A.: Oligotrophic spring vegetation in Spanish mountain ranges 281

MORAVCOVÁ L., ZÁKRAVSKÝ P. & HROUDOVÁ Z.: Germination and seedling establishment in *Alisma gramineum*, *A. plantago-aquatica* and *A. lanceolatum* under different environmental conditions 131

MRÁZ P.: Chromosome numbers in selected species of *Hieracium* sect. *Alpina* (*Asteraceae*) from Central and eastern Europe 321

MUMMENHOFF K., COJA U. & BRÜGGEMANN H.: *Pachyphragma* and *Gagria* (*Brassicaceae*) revisited: molecular data indicate close relationship to *Thlaspi* s.str. 293

NI J.: A biome classification of China based on plant functional types and the BIOME3 model 113

ONIPCHENKO V.G., MAKAROV M.I. & VAN DER MAAREL E.: Influence of alpine plants on soil nutrient concentrations in a monoculture experiment 225

PALMER M.W.: Extending the quasi-neutral concept 25

PANITSA M. & TZANOUDAKIS D.: A floristic investigation of the islet groups Arki and Lipsi (East Aegean area, Greece) 265

PEÑAS J., CABELLO J., VALLE F. & MOTA J.F.: High mountain psychro-xerophilous calcicolous pastures of the Iberian Peninsula: *Minuartio-Poion ligulatae* 353

RYDIN H. & BARBER K.E.: Long-term and fine-scale coexistence of closely related species 53

RYDLOVÁ J. & VOSÁTKA M.: Associations of dominant plant species with arbuscular mycorrhizal fungi during vegetation development on coal mine spoil banks 85

SUDA J. & LYSÁK M.A.: A taxonomic study of the *Vaccinium* sect. *Oxycoccus* (HILL) W.D.J. KOCH (*Ericaceae*) in the Czech Republic and adjacent territories 303

SUN X.D., GE XUEJUN, KIRSCHNER J. & ŠTĚPÁNEK J.: *Taraxacum siphonanthum*, a new species from Nei Mongol, Ne China 209

ŠMILAUER P.: Communities of arbuscular mycorrhizal fungi in grassland: seasonal variability and effects of environment and host plants 243

ŠMILAUEROVÁ M.: Plant root response to heterogeneity of soil resources: effects of nutrient patches, AM symbiosis, and species composition 337

ŠTĚPÁNKOVÁ J.: Non-adaptive hypothesis of allopatric cytotype distribution in *Myosotis lamottiana* (*Boraginaceae*) 147

WILSON J.B. & ANDERSON B.J.: Species-pool relations: like a wooden light bulb? 35

ZOBEL K.: On the species-pool hypothesis and on the quasi-neutral concept of plant community diversity 3

Bookreviews 99, 215, 333, 445

Publication dates of 2000 issues

Vol. 35, No. 1 (pages 1–106)	*13 July 2000*
Vol. 35, No. 2 (pages 107–230)	*17 August 2000*
Vol. 35, No. 3 (pages 231–350)	*10 November 2000*
Vol. 35, No. 4 (pages 351–462)	*19 January 2001*

INDEX OF KEYWORDS

A

Achillea millefolium group 163, 243
agamospermy 321
Alisma 131
allopatric cytotype distribution 147
alpine plants 225
Alps 321
ammonium 225
AM symbiosis 337
arbuscular mycorrhizal fungi 85, 243
Arki 265
Asteraceae 163, 225, 321, 423

B

benomyl 337
biome classification 113
BIOME3 113
Boraginaceae 147
Brassicaceae 293
breeding system 321
Brimeura 193
bryophytes 63

C

calcicolous pastures 353
calcium 225
Cardamino-Montion 281
Carpathians 321
Caucasus 225
central Europe 163, 321
China 113, 209
chromosome numbers 163, 303, 321
classification 353
closely related species 53
coal mine spoil banks 85
coexistence mechanisms 9
competition 45, 53, 71
concept of plant community 3
cytogeography 147
Czech Republic 163, 303

D

degraded soils 85
desert 113
discriminant analysis 423
dispersal limitation 9
dispersal 53
distribution 131, 371
diversity 63
dominant plant species 85
Doronicum 423

E

east Aegean area 265
eastern Europe 321
ecoregion 113
environmental attributes 113
Ericaceae 303
experiment 53

F

facilitation 63
fertilization 243
Festuca sect. *Eskia* 385
Festuca 385
Festuco hystricis-Ononidetea striatae 353
fine-scale coexistence 53
flooding 131
floristic investigation 265
flow cytometry 303, 371
forbs 337
forest 113
fungal morphotypes 243

G

Gagria 293
geochemical specialization 225
germination 131
global change 113
Glomus 85
grasses 337
grassland community 113, 243, 337
Greece 265
Guttiferae 371

H

heterogeneity soil resources 337
Hieracium sect. *Alpina* 321
host plants 243
Hyacinthaceae 193
Hypericum carpaticum 371
Hypericum sect. *Hypericum* 371

I

Iberian Peninsula 281, 353, 385
included niches 71
indigenous AMF 85
individual based null models 9
inner Mongolia 209
invading species 63
islet ecosystems 265
islet flora 265
ITS-sequence analysis 293

K

karyology 163, 193, 371

L

lectotypification 147
leptosol 225
Lipsi 265
local richness 9
long-term coexistence 53

M

magnesium 225
Mediterranean flora 193
methodology 9
Minuartio-Poion ligulatae 353
molecular data 293
monoculture experiment 225
Montio-Cardaminetea 281
morphology 371
morphometric analysis 147
morphometric characters 423
mountain ranges 281
mowing 243
multivariate approach 423
multivariate morphometrics 303
mycorrhizal symbiosis 85
Myosotidion stoloniferae 281
Myosotis lamottiana 147
Myosotis 147

N

Nei Mongol 209
new combination 385
new species 371
niche limitation 9
nitrates 225
nitrogen 337
nomenclature 147, 385
null model 45
nutrient patches 337

O

observed species pools 71
oligotrophic spring vegetation 281
ordination techniques 423
ordination 353

P

Pachyphragma 293
palaeoecology 53
patterns of diversity 71
persistence 53
phosphorus 225, 337
phylogenetic relationships 293
phytosociology 353
plant community diversity 3
plant functional types 113
plant geography 163
plant species density 265
plant species diversity 265
Plantago lanceolata 243
Poa pratensis 243
Poaceae 225
polyploidy 303, 321
potassium 225
potential species pools 71
principal components analysis 423
psychro-xerophilous calcicolous pastures 353

Q

quasi-neutral concept 3, 25

R

reproductive strategy 131
root biomass 337

S

seasonal dynamics 243
seasonal variability 243
secondary metabolites 371
seed germination 131
seedling establishment 131
Senecioneae 423
Slovakia 163, 371
soil nutrient concentrations 225

soil resources 337
Spain 281
spatial pattern 9
spatially explicit simulations 9
species composition 337
species diversity 45, 265
species pool hypothesis 45
species pool 9, 35, 53, 71
species richness 71
species saturation 9
species-area relationship 9, 265
species-pool hypothesis 3, 45, 63
spring vegetation 281
stratification 131
Sudeten 321
syntaxonomic revision 353
syntaxonomy 281

T

Taraxacum sect. *Borealia* 209
Taraxacum sect. *Mongolica* 209
Taraxacum siphonanthum 209
taxonomy 193, 209, 371, 385, 423
temperature 131
testing species-pool hypothesis 45
Thlaspi 293
Trifolium 225
tubular florets 209

V

Vaccinium sect. *Oxycoccus* 303
vegetation classification 113
vegetation development 85

W

wetland plants 131

Y

yarrow 163

List of reviewers in 2001

Alaback P.
Albach D.
* Al-Shehbaz I.
Ammann B.
Bellingham P.J.
Bilger W.
Borgen L.
Brunner A.
Bureš P.
Chytrý M.
Comes H.P.
de Kroon H.
Diekmann M.
Dunnett N.P.
During H.J.
Dzwonko Z.
Fitter A.H.
Forget P.-M.
Gornall R.
Grabherr G.
Gryndler M.
Hedenäs L.
Heinken T.
Heiucuicyer A.
Hurka H.
Jong-Won K.
Jonsell B.
Kamada M.
Keddy P.
* Klimeš L.
Knight D.H.
Koch M.
Kohyama T.
Körner Ch.
* Krahulcová A.
* Krahulec F.
Kubo T.
Lepš J.
Liston A.
Mahn E.-G.
Mártonfi P.
Montserrat Martinez M.
Mueller-Dombois D.
Nakagoshi N.
Nieto Feliner G.
Ohkubo T.
Økland R.H.
Palmer M.W.
Pokorný J.
Preston C.D.
* Pyšek P.
* Rejmánek M.
Roig F.A.
Roloff A.
Rydin H.
Ryser P.
Schmidt W.
Šmilauer P.
Spalik K.
Spribille T.
* Stace C.A.
Štepánek J.
Stöcklin J.
Streitwolf R.
Suda J.
Taylor A.H.
Thompson K.
Usher M.B.
van Geel B.
Veblen T.
Watson M.
Werger M.J.A.
Whigham D.
Wilcox D.A.
Wildi O.
Yamamoto S.

Reviewers who made two or more reviews are marked by an asterisk.